

# APPARATUS FOR ELECTRON BEAM LITHOGRAPHY

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## Abstract of JP2001126651

**PROBLEM TO BE SOLVED:** To provide an apparatus for electron beam lithography of which trajectory is not affected by a magnetic field leakage from a permanent magnet used in a guide and drive mechanism of a specimen stage.

**SOLUTION:** A guide mechanism of a specimen stage 16 comprises an air bearing guide, floating over a fixing table 18. The stage 16 is drawn by a permanent magnet 17 toward the fixing table 18 maintaining the stage position. The permanent magnet 17 is shielded by a shield member 21 in order to prevent a magnetic field leakage of the permanent magnet 17 from affecting the position of illuminating the specimen 7 with an electron beam 4. Another shield member 22 is mounted below the electron lens 5 in order to inhibit the magnetic field variation generated above the specimen 7 owing to the movement of the shield member 21 through the leakage. The guide mechanism of the stage is not contacted to prevent any slight distortion of the table member mounting the specimen, so that the stage may be precisely moved to precisely picture the specimen by the electron beam.

